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ABSTRACT

Louisiana Tech University conducted a program to reduce drop-out probabilities for at-risk special needs adolescents as part of the Job Training Partnership Act (JTPA). Eighty-six students between the ages of 14 and 16 were chosen as "at-risk" based on economic disadvantage, lower academic performance, behavioral and adjustment problems, family dropout history, personal interview, and the judgement of a guidance counselor. For an 8-week period, students resided at Louisiana Tech University, where they were immersed in job, academic, and personal activities. Each participant worked 20 hours per week at various job sites on the campus and were paid minimum wage. Students also received 4 hours per day of language arts and mathematics instruction. Counseling, recreation, and performing arts activities were optional. Researchers gathered pre- and post-test data on: (1) attitudes toward job choice and career success; (2) academic achievement; (3) attitudes toward education and schools; and (4) self-concept. Rating of job performance by supervisors was positive, and rating of job satisfaction by employees revealed general satisfaction. No significant pre-post gains emerged in career attitudes or education attitudes. Consistent gains in academic achievement appeared in all components. Contrary to expectations, students showed a decrease in self-concept. (KS)

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Dropout Prevention for Rural At-Risk Youth

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Abstract

A program designed to impact drop-out probabilities for at-risk special needs adolescents was conducted as part of the Job Training Partnership Act of 1982, amended 1986 (JTPA) at Louisiana Tech University. The program was designed to address the issue of school completion and employability as a function of total immersion in job, academic, and personal activities. Pre- and post-test data were gathered on attitudes toward job choice and career success, academic achievement, education and schools, and self-concept in an effort to record the impact of the program on students' expectations. Analyses of gains reflect improvement in many areas, although some effects reflect no change or negative change (e.g., self-concept measures). The results of this program are discussed in terms of the effectiveness of an immersion model to dropout prevention programs, and the necessity for controlled, longitudinal research is described.

School Drop-Out Prevention: A Multificated Program for the Improvement of Adolescent Employability, Academic Achievement, and Personal Identity

There is a growing effort in this country to find effective ways to deal with the drop-out problem[2]. Among those involved in this search are policy-makers, business persons, educators, psychologists and parents. One result of this effort was the passage of the Job Training Partnership Act (JTPA) in 1982 and amended in 1986. In addition to the JTPA involvement in adult training and employment programs, the legislation has enabled summer programs to be established in some locations around the country for high school students who are considered to be "high-risk" in terms of their likelihood of dropping out of school. One goal of these programs has been to focus the students' interest on the connection between education and future employability and along the way affect their perceptions of themselves as these impact their future careers.

The pervasiveness and complexity of the dropout problem facing American education has stimulated a great deal of research into probable causes and possible solutions. Using regression models, several variables have emerged which predict to increased dropout likelihood including: (a) low socioeconomic status of the family, (b) lack of books and other reading materials in the home, (c) level of schooling of parent of the same sex, (d) low grades in school, and (e) teen pregnancy (Alexander & Eckland, 1975;

Rumberger, 1983). In addition, Fitzsimmons, Cheever, Leonard, and Macunowich (1969) has identified prior academic failure as a major contributing factor to drop-out probability. Collectively, these variables reflect situations in which young people have limited expectations, i.e., they may expect little from their environments and from themselves as students and, in turn, as employees. As a result, these variables may diminish students' aspirations of completing high school.

Among the dramatic changes that occur during adolescence is an affirmation of one's identity through educational, social, and personal experience. Many current approaches to dropout prevention focus on only one of these self-identification or self-improvement processes (e.g., pull-out programs, workshops, tutorials, social skills training programs) and most approaches have students remain in their current environment during the intervention effort. As a result, while improvement may accrue to certain aspects of self, other aspects are not treated. In an effort to effectively intervene in an adolescent's life, a total approach is warranted, e.g., one in which all aspects of the adolescent's life become components of an overall plan to attenuate the dropout probabilities for at-risk youth. For example, Morrow (1986) has suggested preventive programs must focus on students identified as at-risk during early adolescence and must continue through graduation and should include (a) separation of potential dropouts from other students, (b) inclusion of a strong vocational

component, (c) use of out of class instruction, and (d) intensive counseling. Such comprehensive programs should more effectively address the developmental aspects of an adolescent's identity through improved self-concept, academic achievement, and career potential.

Design and Method

Based on research on the nature and causes of dropping out of school, along with the career-orientation of the JTPA legislation, a comprehensive program has been conducted at Louisiana Tech University involving a number of at-risk high school students from North Louisiana. "At-risk" students were chosen based on economic disadvantage, lower academic performance, behavioral/adjustment problems, family dropout history, personal interview, and the judgement of a guidance counselor (Wells, Springer, & McCready, 1987)[3]. The program involved students coming to Louisiana Tech University for eight weeks where they were immersed in job, academic, and personal activities. The multifaceted nature of the program (described in detail below) was designed to address one of the major goals of the JTPA program, e.g., increasing employability through increasing educational advantages for otherwise at-risk students. Significant gains in the overall identity of these young people were expected across measures of job performance, academic achievement[4], and personal growth. The concept of immersion is likely to be a major

contributing factor to the improvement of the situations of these young people.

As a result of the selection process, 86 young people participated in the program (forty-one 14-year-olds, forty-three 15-year-olds, and two 16-year-olds; M = 14.55, SD = .55). Of these there were forty-five males and forty-one females, eighteen Caucasians, sixty-six Afro-Americans, one Native American, and one Asian American.

In order to significantly impact the lives of this special needs population, the program was designed around five components: vocational training, academics, counseling, recreation, and performing arts. In the vocational component, the students were placed at various job sites on the Louisiana Tech University campus. Participants were placed in jobs which reflected their interests as expressed on questionnaires developed by JTPA staff. Each participant worked for twenty hours per week (four hours a day, Monday through Friday) and were paid minimum wage. There were numerous jobs to choose from, ranging from working with horses at the University Equine Center to doing clerical work for various University offices (e.g., academic departments, the library). Participants worked under the supervision of regular on-site University employees and were also monitored by members of the JTPA staff who visited the work sites regularly. Job descriptions and work competencies were developed for each position with each

participant's end-of-program evaluation being based on these competencies[5].

In order to evaluate job-relevant dimensions of students' work experiences, the My Vocational Situation Inventory (MVS; Holland, Draiger, & Power, 1980) was administered to students at the beginning and end of the program. This inventory is designed to assess individuals' (1) "work identity," (2)"need for occupational information," and (3) "perceptions of barriers to occupations." The work identity dimension relates to how coherent individuals' career plans are. The occupational information dimension reflects the degree to which individuals need information about career and job plans. Perception of occupational barriers reflects the extent to which individuals see obstacles in their career or job paths.

In addition to the above measures, job-site supervisors were asked to evaluate participants across a variety of dimensions in terms of (1) the participant's improvement and (2) the participant's overall evaluation on each dimension. These dimensions included attendance, punctuality, ability to work with others, dress and appearance, learning from others, initiative, following directions, interest in work, responsibility, quality of work, accuracy, consistency, employability, and overall performance. Supervisors rated each employee's improvement on a 5-point scale (1 = little improvement, 5 = great/extreme improvement) while the rating of overall quality on each dimension was made on a 4-point scale (1 = excellent, 5 = below average).

Finally, participants were asked to complete a Likert-type (5-point scale) attitude survey designed to assess their overall satisfaction with their work experience during the program. The forty-two questions asked the degree to which they agreed with statements such as, "This job lets me do things I am interested in doing," "I get along pretty well with the people that I work with on the job," and "From my JTPA job experience, I have more respect for how hard it is to work for a living." The total score reflects the degree of satisfaction with their job experience[6].

For the academic component, students spent four hours per day receiving instruction in the language arts and mathematics (two hours in each). Each class had a lead instructor and an assistant instructor[7] and was limited in enrollment to twenty-two students. Half the program's students attended classes in the morning and worked in the afternoon while the remaining students worked in the morning and attended classes in the afternoon. The teachers utilized "high interest" material in the classrooms which paralleled the traditional curriculum used in Louisiana. The students could receive credit toward high school graduation upon successful completion of the courses. In addition to in-class measures related to academic performance (grades, e.g.) the California Achievement Test, 1985 (CAT) was administered to all students at the beginning and end of the program. In addition to this traditional measure, the DEMOS D (Dropout) Scale (Demos, 1980) and the Study Attitudes and Methods Survey (SAMS, Michael, Michael,

& Zimmerman, 1985) were administered at the beginning and end of the program. The DEMOS is designed to assess dropout likelihood among high school students and gives a total score and four sub-scale scores which reflect attitudes toward teachers, attitudes toward education, influences by peers/parents, and school behavior. The SAMS yields six scores measuring (1) academic interest/love of learning, (2) academic drive/conformity, (3) study methods, (4) study anxiety, (5) lack of manipulation, and (6) alienation toward authority.

The remaining three components -- counseling, recreation, and performing arts -- highlight the program's emphasis on personal growth. The counseling component of the program provided the students with individual, social skills, and group counseling. In addition, counselors worked with the vocational staff to provide vocational counseling. The counseling staff[8] played a pivotal role as liaison between teachers, recreational staff, performing arts personnel and students. In addition to counseling activities, counselors served the students proactively by providing structured events aimed at social growth and reactively by helping students solve problems associated with the adjustments of the residential program. Although no treatment-based counseling evaluations were done for participants, it was expected that students would show significant improvement across various dimensions of self-concept as measured by the Tennessee Self-Concept Scale (TSCS, Roid, & Fitts, 1988). The TSCS not only provides an overall measure of

self-esteem, it gives a variety of sub-scale scores which can be compared with clinical and non-clinical norms. These sub-scales include (1) self-criticism, (2) identity, (3) self-satisfaction, (4) behavior, (5) physical self, (6) moral-ethical self, (7) personal self, (8) family self, and (9) social self. It also provides a measure of the degree to which one's personality is integrated or "definite" represented on a "distribution" scale score.

The recreational component provided structured events in the evenings and on weekends which were aimed at introducing students to sports (volleyball, badminton, weight-training) and facilities (Nautilus equipment) to which students usually had little or no access. Exercise and games were utilized to emphasize many of the goals of the counseling component such as participation, fairness, and assertiveness. Recreation also included attending area sporting events, dances and barbecues.

The performing arts component provided students the opportunity to learn about and gain experience working in the various aspects of producing live performances. Students could opt for training in choir, dance, acting, and stage production. Even though participation in performing arts was optional, fifty-five students ultimately committed approximately six hours a week of their "free time" to learn about performing arts. The performing arts staff included a professor of music as director, three graduate students, and one undergraduate assistant.

Results

Work Experience. Information on participants' work experiences was gathered from a variety of sources including on-site supervisors, JTPA program staff, and the participants themselves. Supervisors were asked to keep records of the employees' activities with regard to particular job competencies. JTPA staff monitored the degree to which participants were fulfilling their job requirements and employees were judged overall to have successfully performed their required duties. In addition to this ongoing evaluation process, supervisors were asked to judge each employee as to improvement and overall evaluation across the dimensions mentioned earlier (attendance, punctuality, etc.). For all participants, overall improvement across all dimensions was between moderate and good (M = 3.11, SD = 1.09). The overall evaluation for each participant across all dimensions was between good and excellent (M = 2.09, SD = .64). As an indication of improvement during the course of the program, these results reflect at least general satisfaction with the level of improvement and overall performance of employees. Written comments were part of supervisors' evaluation of employees at the end of the program and these were for the most part very positive. Employee responses to the Likert-type attitude survey revealed general satisfaction with the job component of the program (M = 3.99, SD = .53, with 5 representing the highest degree of satisfaction).

Results of the My Vocational Situation Inventory reveal only moderate and somewhat inconsistent pre-post gains for the entire group of employees. No significant pre-post gains emerged on either the vocational identity dimension or the perception of barriers to occupations dimension (p's > .10). A marginal gain emerged on the occupational information dimension (one-tailed $t_{79} = 1.34$, $p < .10$), with the mean score (on a scale of 1 to 4) moving from .78 to .94. While this is not a significant effect, the movement is in the right direction (higher scores reflect less need for occupational information), what is striking is the comparison of these mean scores with the normative score for high school students generally which, on this dimension is 3.65 (SD = 1.17), thereby placing the program participants outside two standard deviations from the normative mean. Perhaps the occupational information dimension warrants closer attention in future programming[9].

Educational Experience. Results of the California Achievement Test (1985) revealed consistent gains across virtually every component (see Tables 1 and 2). As can be seen in Table 1 the gains are particularly dramatic for improvement in percentile scores. The educational component seems to have accomplished the goal of dramatically improving educational achievement.

Insert Table 1 and 2 About Here

Analyses of the DEMOS D (Dropout) Scale (Demos, 1980) were less consistent with expectations related to decreases in dropout likelihood for program participants. DEMOS scores are associated with 5 categories of "dropout probability"[10]. Gains for all 5 categories for the entire group revealed no significant changes (*p*'s > .05). Closer analyses showed the distribution of pre-test total scores for the JTPA group to be clustered in the score range reflecting an "even" (50-50) chance of dropping out of school (pre- and post-test total score *M*'s = 57.74 [*SD* = 11.14] and 57.47 [*SD* = 11.19], respectively). Sixty-five (75.58%) of the JTPA group were in this category. Considering this category alone did reveal some significant gains on the DEMOS (improvements in total score, attitudes toward teachers, and influences of peers/parents; see Table 3). Based on further analyses of groups based on pre-test

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Insert Table 3 About Here

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total scores, some evidence for gains did result although sample sizes within each of the probability categories are very small. For those in the "little chance" and "some chance" categories (*n*'s = 0 and 3, respectively), no significant gains emerged for the DEMOS measures. There were 2 individuals who pre-tested in the "strong chance" category (total score) and results showed significant gains for these individuals on the teacher attitudes subscale (one-tailed *t* 1 = -99.00, *p* < .001). Generally, results indicate some program

effects on dropout probabilities, although dramatic shifts from one likelihood category to another did not emerge.

Results on the Study Attitudes and Methods Survey revealed few significant effects. Analyses of gains for the 6 sub-scales were non-significant except for the alienation-toward-authority dimension, which, contrary to expectations, showed that students were more alienated toward authority at the end rather than the beginning of the program (one-tailed t 78 = 1.92, p <.008; pre-test M = 18.66, post-test M = 20.30). Surprisingly, the group as a whole scored at approximately the 82nd percentile on the academic interest and academic drive sub-scales and at roughly the 75th percentile on the study methods sub-scale. At the same time, students fell within expected percentiles on study anxiety, manipulation, and alienation (60th, 83rd, and 75th percentiles, respectively).

Personal Growth. Analyses of the Tennessee Self-Concept Scale provided little support for the expectation that participants made significant gains on a variety of self-concept dimensions. As can be seen in Table 4, marked improvement was achieved only in individuals' self-criticism scores, i.e., an increasing score reflects more openness with self and an overall increase in self-analysis. Contrary to expectations, the self-satisfaction scores decreased significantly, indicating a decrease in positive self-image. In addition, the distribution scores significantly dropped at post-testing reflecting a diminished personality integration.

The unexpected direction of these changes may be due in part to the participants being confronted with novel situations and the negative effects may indicate individuals in transition.

Discussion

In many respects the program appears to have enhanced participants' ability to work and to understand the intricacies of holding a real job. Evidence of supervisors' evaluations, as well as participants' judgments of satisfaction with their employment seem to indicate a generally positive experience. It is likely that the experiences these young people have had in working will translate to an enhanced appreciation for the world of work and will hopefully lead to greater success in their career and job paths. Data suggest, however, some areas of concern with regard to the clarity of participants' understanding of occupations. While results on the My Vocational Situation Inventory suggest that participants are not significantly different from normative groups on the clarity of occupational identity and in the perception of barriers to occupations, the program group is dramatically less informed about occupations than normative samples (Holland, Draiger, and Power, 1980). Although some marginal gains were made in this area over the course of the program, it is perhaps an area that should be addressed more explicitly in future intervention plans.

Educationally, the program seems to have produced dramatic improvements in academic achievement. This may be especially

important given the attrition of knowledge over the summer months for students from lower socio-economic backgrounds (Heyns, 1978). Followup data will be necessary to assess the degree to which the academic program has produced lasting academic gains.

The programs impact on dropout likelihood is not completely clear. While it seems that participants in the 50-50 likelihood category showed significant decrease in dropout scores, they did not drop into a lower likelihood category. It is worth noting that, for this group, attitudes toward teachers significantly improved, highlighting the effectiveness of the instructional staff. Taken together with other improvements (e.g., academic achievement) these shifts may in fact significantly diminish dropout likelihood for this group in the future. Interestingly, the JTPA group seems to have been similar to normative non-dropout groups (Demos, 1980). This may suggest that more careful attention should be paid to selection of high dropout-risk students, perhaps based on responses to a measure such as the DEMOS D (Dropout) Scale. It appears that the program did produce dramatic shifts for some of the program participants, revealing improvements in dropout likelihood from the strong to 50-50 likelihood category.

While students showed some expected attitude shifts on the dropout measure, their attitudes toward studying as revealed on the Study Attitudes and Methods Survey show inconsistent and unexpected patterns. Evidently, participants became more alienated toward authority over the course of the program. This may be due

in part to the relatively rule-governed environment in which they found themselves. All aspects of the program were tightly controlled and students were monitored virtually all the time. Recall that students were housed on campus and under direct supervision, not only in school, but in the dorm, 24-hours a day, everyday. It may be the case that some resentment of or resistance to this tight control developed for the students. Future interventions should perhaps attend to participants' perceptions of authority and the degree to which they feel unfettered by program structure.

Perhaps the most difficult aspect of the program to assess is the paucity of expected results in self-concept improvement. Results on the Tennessee Self-Concept Scale were notably nonsignificant except for negative changes on a few dimensions. Taken together, the results suggest that participants were faced with dramatic changes during the course of the program which may have unsettled them to the point that, e.g., their self-satisfaction scores should show a drop at post-test. Some evidence to support this interpretation comes from the expected and positive change in self-criticism scores which indicates an increased willingness to critically examine one's self. Followup data would be necessary to assess the degree to which eventual positive self-concept changes would occur.

In addition to the analyses of results of the various measures discussed so far, there is information from a variety of sources

which indicates an overall positive experience for most of the program participants. Counselors, employers, and program staff shared information on an ongoing basis about the students that reflect significant changes for individuals. While it may be said that perceptions of improvement may be due to expectations, and therefore some bias in favor of certain conclusions, it should be remembered that positive effects are often the result of positive expectations. Indeed positive expectations were an integral part of the program. It is hard to capture the extent and nature of personal changes from the standpoint of aggregate data. On an individual level, anecdotes abound as to the sometimes dramatic positive changes which occurred for some program participants. For example, involvement in the extracurricular activities seemed to "bring out" some students in ways that may significantly increase their future success. Longitudinal tracking of these students is necessary to uncover these long-term developmental changes.

Overall, the program seems to have had desired effects on understanding employment which will likely enhance participants' future jobs and careers. Participants seemed to have experienced dramatic gains in academic achievement which should translate into improved employability if their academic achievements are maintained through graduation. They seemed to experience a variety of personal changes during the course of the program, not all positive, but perhaps instructive for their future growth and development.

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FOOTNOTES

[1]This research was supported in part by Job Training Partnership Act Funds (JTPA) Contract Numbers (#88-70-14-IIB; 88-II-AC.T.-8; 88/89-82-IIB-2). We gratefully acknowledge Jan Haworth of The Coordinating and Development Corporation-Shreveport, LA, Rapids Parish Police Jury. Alexandria, LA, and Union Community Action Association, Inc.-Farmerville, LA. We would also like to thank Phillip Springer for his contribution to the data management process.

[2]While reported drop-out rates vary depending on how dropout is defined (Rumberger, 1987), it has been estimated that between 25 and 45% of our nation's secondary school students will fail to obtain a diploma (Foley & Crull, 1984; Grant, 1975; Hess & Lauber, 1985; Kunisawa, 1988).

[3]Guidance counselors played a key role in identifying potential program participants. Once a pool was established, staff of the three Private Industry Councils representing three North Louisiana areas, made the final selection.

[4]Gains in academic achievement may extend beyond the program period by maintaining academic ability/achievement over the summer. This may be especially true for students from lower socio-economic backgrounds who have been show to lose ground while students from wealthier families actually gain over the summer months (Heyns, 1978).

[5]Results of these evaluations, as well as analyses of the additional measures mentioned, are included in the Results section which follows.

[6]Although this scale was created especially for the purposes of this program, items were drawn from dimensions which appear on existing job satisfaction measures, and preliminary coefficients of reliability suggest that it is a relatively coherent measure (Cronbach's alpha = .81).

[7]All instructors were professionally trained master teachers from area schools.

[8]The counseling staff was composed of two master counselors (one male, one female) with masters degrees in counseling with backgrounds in educational settings, six dorm counselors (three males, three females) and eight counselor-tutors (two of whom served as lead counselors because of their experience in previous JTPA programs) all of whom were college students.

[9]It appears that the JTPA participants had somewhat lower (less favorable) scores on the vocational identity dimension compared to the general high school population based on reported norms (Holland, Draiger, & Power, 1980). The normative mean on vocational identity is 9.57, SD = 4.67 compared to pre- and post-test means of 7.90 (SD = 3.33) and 8.21 (SD = 3.00), respectively for JTPA participants. Surprisingly the JTPA participants had higher (more favorable) scores than the normative sample on the barriers dimension (JTPA pre- and post-test means = 2.41 [SD = 1.17] and 2.51 [SD = 1.08], respectively; normative mean = 2.03 [SD = 1.21]).

[10]The conversion of scores to dropout probability is as follows:

Component	Little Chance	Some Chance	Even	Strong Chance	Very Strong
Total	<29	30-39	40-79	80-89	90-145
Teacher	<10	11-15	16-25	26-35	36-50
Education	<9	10-15	16-25	26-35	36-45
Peers/Parent	<5	6-10	11-15	16-20	21-25
School	<5	6-10	11-15	16-20	21-25

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Table 1

California Achievement Test Pre- and Post-Test

Percentile (%-tile) Gains

CAT Scales	Pre-Test %-tile Mean (SD)	Post-Test %-tile Mean (SD)	Difference Mean (SD)	t	df	p
Vocabulary	27.54 (24.52)	43.33 (27.23)	15.79 (18.29)	7.91	83	<.0001
Language Comprehension	22.13 (19.16)	37.04 (25.29)	14.90 (15.67)	8.66	82	<.0001
Total Reading	24.22 (26.49)	40.71 (22.17)	16.49 (15.89)	9.46	82	<.0001
Spelling	44.01 (29.20)	63.80 (29.93)	19.78 (21.81)	8.06	78	<.0001
Language Mechanics	37.18	63.49	26.30	11.20	81	<.0001

(Table 1 continued)

	(23.91)	(28.02)	(21.26)	
Language Expression 81 <.0001	28.11	38.78	10.67	5.72
	(22.00)	(23.78)	(16.91)	
Total Language 81 <.0001	30.78	49.32	18.54	10.14
	(22.46)	(26.27)	(16.55)	
Math Comprehension 84 <.0001	42.66	55.19	12.53	6.17
	(28.04)	(29.05)	(18.72)	
Math C & A 84 <.0001	32.86	42.78	10.22	5.77
	(22.38)	(25.17)	(16.33)	
Total Math 85 <.0001	36.86	47.38	10.49	6.89
	(25.30)	(26.85)	(14.13)	

Table 2

California Achievement Test Pre- and Post-Test

Grade Equivalency (GE) Gains

CAT Scales	Pre-Test GE	Post-Test GE			
	Mean (*SD*)	Mean (*SD*)	Difference	*t*	*p*	df
Vocabulary	6.81 (2.84)	8.50 (3.03)	1.69 (1.92)	8.10	<.0001	83
Language Comprehension	6.88 (1.83)	8.19 (2.27)	1.30 (1.44)	8.23	<.0001	82
Total Reading	6.85 (2.40)	8.38 (2.64)	1.53 (1.56)	8.96	<.0001	82
Spelling	8.55 (2.86)	10.31 (2.97)	1.76 (2.04)	7.75	<.0001	79
Language Mechanics	7.29	10.29	2.99	9.52	<.0001	82

(Table 2 Continued)

	(3.53)	(3.47)	(2.86)	
Language Expression	5.87	7.34	1.47	5.20
82 <.0001				
	(3.39)	(3.58)	(2.58)	
Total Language	6.44	8.76	2.32	8.97
81 <.0001				
	(3.44)	(3.52)	(2.34)	
Math Comprehension	8.64	9.94	1.30	5.72
85 <.0001				
	(3.08)	(3.14)	(2.12)	
Math C & A	7.57	8.70	1.13	5.75
85 <.0001				
	(2.83)	(2.93)	(1.82)	
Total Math	8.15	9.25	1.09	6.38
85 <.0001				
	(2.85)	(2.90)	(1.59)	

Table 3

Pre- Post-Test Gains in Mean Scores for the DEMOS for Those Falling in the Even Category on Pre-Test

Score	Pre-Test Mean (SD)	Post-Test Mean (SD)	Difference Mean (SD)	t	df	p
Total	59.11 (9.33)	56.80 (10.06)	-2.31 (5.96)	-3.12	64	<.01
Teacher	24.25 (4.66)	23.46 (4.53)	-0.78 (3.88)	-1.63	64	<.05
Education	14.12 (3.10)	13.77 (3.74)	-0.35 (3.64)	-0.78	64	<.21
Peers/ Parents	10.57 (2.59)	9.85 (2.98)	-0.72 (2.80)	-2.08	64	<.02
School	9.94 (2.77)	9.72 (2.89)	-0.22 (2.36)	-0.74	64	<.23

(Table 3 Continued)

Note. Lower scores reflect significant changes in scale scores, although the clinical probability of dropping out school did not change significantly.

Table 4

Tennessee Self-Concept Scale Pre- and Post-Test Gains on Selected Sub-Scales

Sub-Scale	Pre-Test Mean (SD)	Post-Test Mean (SD)	Difference Mean (SD)	t	df	p
Self-Criticism	34.85 (5.07)	36.32 (5.60)	1.47 (5.28)	2.51	80	<.008
Self-Satisfaction	99.70 (12.42)	96.05 (15.23)	-3.65 (13.64)	-2.41	80	<.009
Distribution	127.56 (26.27)	118.48 (31.60)	-9.07 (24.06)	-3.39	80	<.001

Note. Decreasing scores reflect negative effects; increasing scores reflect positive effects. Only sub-scales for which there were significant pre-post gains are included. Personal Identity